

From: Rochlin, Kevin
Sent: Friday, December 06, 2013 5:46 PM
To: Barbara Ritchie
Cc: Rochlin, Kevin; Greutert, Ed [USA]; Zavala, Bernie
Subject: EPA responses to FMC's responses to the Hydro Study Comments
Attachments: EPA responses to FMC responses to EPA comments dated and received September 13.docx

We may want to set up a call to discuss.

Kevin



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

October 6, 2013

Reply to
Attn. of ECL-111

Ms. Barbara Ritchie
FMC Corporation
1735 Market Street
Philadelphia, Pennsylvania 19103

**RE: Unilateral Administrative Order for Remedial Design and Remedial Action
EPA Docket No. CERCLA 10-2013-0116**

**EPA review of FMC responses to comments on the Extraction Zone Hydrogeologic Study
Work Plan submitted July 15, 2013**

Dear Ms. Ritchie:

EPA has reviewed the FMC responses to comments on the referenced document. There are still a few issues that have not been adequately addressed. Please let me know if you would like to hold a conference call to discuss these.

Sincerely,

Kevin Rochlin,
Project Manager

Enclosure

EPA review of FMC responses to comments on the Extraction Zone Hydrogeologic Study Work Plan submitted July 15, 2013

Responses to EPA's comments:

General Comments

An additional cross-section from the FMC's RI shall be included in this document to better address **general comment #3**. This cross-section A-A' from the FMC's Remedial Investigation was developed by Bechtel Environmental. The contour map that was included with the response to EPA's comments was not very informative and while data collection will be occurring during the RA and RD and the conceptual site model (csm) continues to evolve mapping the AFLB using both past data from the geological logs and new information that will be collected will help inform this remediation. EPA still recommends that surface contour map of the AFLB be generated after the collection of this new geological data.

Resolution: Add the required cross section to the document, and additional requirements per the comment.

Specific comments

Comment #1

The FMC response is correct that the text did give a general description on the number of samples being collected but the QA samples were not included. A table similar to the table below (Field Sampling Summary) shall be included in section 3 after 3.5.2. This would address the comment. The table below would be an example of what EPA's is expecting.

Resolution: Add the required table.

Table (3.____, Field Sampling Summary

Type/ Well #		Analytical parameters	QA/QC Samples Field Dup. MS/MSD		Total Samples Field QA/QC Final		
6-hour Step test	EW-01	See table 3.2 for WQP & Metals	1	1	2	1	3
	EW-02	See table 3.2 for WQP & Metals			2		2

	EW-03	See table 3.2 for WQP & Metals			2		2
72-hour pump test	Composite (EW-01, 02, &03)	See table 3.2 for WQP & Metals	1	1	3	1	4
	Bulk (EW-01,02, &03)	See table 3.2 for WQP & Metals	1	1	1	1	2
							13

FD: Field duplicates at a rate of 1 per 10 samples

MS/MSD: Matrix spikes- matrix spike duplicates 1 per 20 samples per type.

Comment #12 (two parts)

Part 1:

EPA understands the response but the overall goal is to achieve containment and restoration of the groundwater. The refinement of the HCS should be based on site specific groundwater quality and the hydraulic of the aquifer parameters. The EPA is generally okay with the locations for EW-01, 2 &3. Based on findings from this field work discussions will need to take place for the other two extraction wells locations.

Part 2:

EPA is still not clear on the logistics on how the purge water will be managed during the 72-aquifer test. EPA agrees based on the water quality from the monitoring wells the purge water is non-hazardous. EPA is expecting a short description of the handling of the water and where it will be stored until it can be used for dust control. Sampling may be required depending on how FMC intends to store water prior to spreading.

Resolution: Amend the document to more fully describe water disposal. Sampling per EPA requirements if EPA determines that it is necessary.

Shoshone- Bannock Tribes' Comments

The Tribes maintains their position on the General Comment. The Tribes reserve the right to re-evaluate the groundwater model report and assumptions derived from that report

including parameters selected for flow and contaminant transport models, assess reasonableness of predicted parameters, and gain better understanding of sorption coefficients, dispersivity and porosity.

Resolution: EPA agrees that the Tribes may re-evaluate the groundwater model. No change is required to the document.

Second bullet section 2.1.4. Tribes maintain this statement should be added. The statement is accurate.

Resolution: This change needs to be made in the document.

The Tribes maintain their request on sampling prior to any water being discharged on Tribal lands or State lands. The Tribes do not agree with FMC response that aluminum, antimony, beryllium, cadmium, copper, lead, molybdenum, mercury, silver, thallium, zinc, organic compounds, and radionuclides are not FMC related contaminants. The Tribes believe these are FMC related contaminants as shown historically in the sampling efforts.

Resolution: See EPA comment response #12. Sampling may be required prior to discharge.

IDEQ Comments

1. Page B-14, section B.4.1.1, step 9 and section B.4.2.1 step 2;

This discussion leads the reader to conclude the data loggers will be set after the start of pumping, resulting in the loss of early time data. Please revise the text to clearly state data loggers are to be set prior to the start of pumping.

Resolution: Make the change required in the comment.